[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-1017; Project Identifier AD-2021-00495-A]

RIN 2120-AA64

Airworthiness Directives; True Flight Holdings LLC Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for all True Flight Holdings LLC Model AA-1, AA-1A, AA-1B, AA-1C, AA-5, AA-5A, and AA-5B airplanes. This proposed AD was prompted by the report of an accident of an airplane with bondline corrosion and delamination of the horizontal stabilizers. This proposed AD would require inspecting the wings, fuselage, and stabilizers for bondline separation, corrosion, and previous repair. This AD would also require repairing or replacing parts and applying corrosion inhibitor as necessary. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to https://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: (202) 493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact True Flight Holdings LLC, 2300 Madison Highway, Valdosta, GA 31601; phone: (229) 242-6337; email: info@trueflightaerospace.com. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (816) 329-4148. It is also available at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-1017.

Examining the AD Docket

You may examine the AD docket at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-1017; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Fred Caplan, Aviation Safety Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474-5507; fax: (404) 474-5606; email: frederick.n.caplan@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2021-1017; Project Identifier AD-2021-00495-A" at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to https://www.regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Fred Caplan, Aviation Safety Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, GA 30337. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA received a report of an accident involving a True Flight Holdings LLC Model AA-5 airplane that occurred on January 19, 2021. During flight, the outboard elevator attach bracket on the horizontal stabilizer detached, causing loss of elevator control, flutter, and significant damage to the airplane. An investigation identified corrosion and delamination of the airplane skin bondlines around the area of the horizontal stabilizer where the elevator attach bracket was attached, as well as on the trailing edge of the elevator trim tab. Field reports have identified additional instances of corrosion and delamination of skin bondlines around the horizontal stabilizer and other primary structures.

Model AA-1, AA-1A, AA-1B, AA-1C, AA-5, AA-5A, and AA-5B airplanes are similar in design and are constructed using a metal-to-metal bonding process. While the bond adhesive remains structurally sound throughout the aging process, factors such as corrosion and freezing moisture may compromise the structural integrity of some of the bond joints. This can lead to delamination of the skin from the primary structure.

Field reports indicate that bondline inspections are not being adequately performed during routine inspections, which emphasize a visual scanning for problem

areas. However, damage can exist with no visual indications, and a mechanic might miss damage in a hidden area. The FAA has determined that a more thorough inspection procedure is necessary to reliably identify corrosion and delamination of bondlines in these critical areas.

This condition, if not addressed, could result in reduced structural integrity of the affected airplane component, with consequent loss of control of the airplane. The FAA is proposing this AD to address the unsafe condition on these products.

FAA's Determination

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Related Service Information under 1 CFR Part 51

The FAA reviewed True Flight Aerospace Service Bulletin SB-195, Revision A, dated June 1, 2021 (True Flight SB-195A). This service information specifies procedures for inspecting the primary structure and flight controls for bondline separation and corrosion and repairing or replacing parts and applying corrosion inhibitor as necessary.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

Other Related Service Information

The FAA also reviewed True Flight Aerospace Service Kit 125, Revision B. This service information specifies procedures for repairing bondline delamination of flight controls and structures.

Proposed AD Requirements in this NPRM

This proposed AD would require accomplishing the actions specified in True Flight SB-195A as already described, except as discussed under "Differences Between the AD and the Service Information."

Differences Between this Proposed AD and the Service Information

This proposed AD would only require the Part A inspections, and not the Part B inspection, from True Flight SB-195A. In addition, True Flight SB-195A specifies reporting information to the manufacturer, and this proposed AD would not.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 2,466 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

Estimated costs

Action	Labor Cost	Parts Cost	Cost per airplane	Cost on U.S. operators
Inspect for delamination and corrosion	8 work-hours x $85 per hour = $680 per inspection cycle	Not applicable	$680 per inspection cycle	$1,676,880 per inspection cycle

The FAA estimates that it would take 3 work-hours at $85 per work-hour to do the proposed corrosion inhibitor treatment. Parts would cost $104 for a total proposed cost of $359 per airplane. In addition, there could be a wide range of areas that may require repair (fuselage, stabilizers, and wings) for the delaminated bondlines and/or corrosion with potential replacement of the entire component. The FAA has no way of determining the number of airplanes that might need these repairs or the exact costs for corrective actions needed as a result of the proposed inspection, as the damage may vary significantly from airplane to airplane.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress

charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

True Flight Holdings LLC: Docket No. FAA-2021-1017; Project Identifier AD-2021-00495-A.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to True Flight Holdings LLC Model AA-1, AA-1A, AA-1B, AA-1C, AA-5, AA-5A, and AA-5B airplanes, all serial numbers, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code: 5330, Fuselage Main, Plate/Skin; 5512, Horizontal Stabilizer, Plate/Skin; 5522, Elevator, Plates/Skin Structure; 5532, Vertical Stabilizer, Plates/Skin; 5542, Rudder, Plate/Skin; 5730, Wing, Plates/Skins.

(e) Unsafe Condition

This AD was prompted by corrosion and delamination of the horizontal stabilizer bondlines. The FAA is issuing this AD to detect and address cracks, buckles, corrosion, delamination, rust, and previous repair of the wings, fuselage, and stabilizers. The unsafe condition, if not addressed, could result in reduced structural integrity of the affected airplane component with consequent loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspection of Bondlines of the Wings, Stabilizers, and Aft Fuselage

Within 100 hours time-in-service after the effective date of this AD or within 12 months after the effective date of this AD, whichever occurs first, and thereafter at intervals not to exceed 12 months, inspect the wings, stabilizers, and aft fuselage for bondline separation, corrosion, and previous repair and take all necessary corrective action before further flight in accordance with paragraphs A.1. through A.7. in True Flight Aerospace Service Bulletin SB-195, Revision A, dated June 1, 2021. Pay particular attention to the areas listed in paragraphs (g)(1) through (3) of this AD.

(1) Bondlines of the horizontal stabilizer outboard rib at the elevator bearing support assembly.

(2) Bondlines of the elevator trim tab inboard rib.

(3) Bondlines and previous repairs of the trailing edges of the elevator trim tabs, elevators, rudder, ailerons, and wings.

(h) Special Flight Permits

Special flight permits are prohibited.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (j)(1) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(j) Related Information

(1) For more information about this AD, contact Fred Caplan, Aviation Safety Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474-5507; fax: (404) 474-5606; email: frederick.n.caplan@faa.gov.

(2) For service information identified in this AD, contact True Flight Holdings LLC, 2300 Madison Highway, Valdosta, GA 31601; phone: (229) 242-6337; email: info@trueflightaerospace.com. You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Issued on November 23, 2021.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.
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